VENUS: SYSTEMATIC CARTOGRAPHY AND GEOLOGIC MAPPING

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Systematic 1 :5m scale mapping of Venus using radar images acquired by the Magellan mission provides the basis for global geologic and thematic mapping. All of the Magellan data arc now widely available on CD ROMs. Recently, a complete set of full resolution digital mosaics on CD ROM has been created by the U. S. Geological Survey. All of these digital products meet rigid cartographic standards. They are fully documented and can be viewed in any map projection. These cartographic data sets provide the synoptic and local base maps that support continuing research into the global history of the. planet, Various mapping efforts arc revealing a complex history of tectonism and volcanism. Ideas about Venus have evolved anti changed as more work is done with the Magellan data, Geophysical models based on the global topography anti gravity data continue to provide ncw insights into the processes that have shaped Venus. NASA has initiated a program of systematic geologic quadrangle mapping m providing a basis for discussion of global stratigraphy concepts and to establish details of regional geology that will allow global correlation of geologic units. Detailed mapping wi ll help ans wcr the basic questions about timing and the stratigraphy of volcanic and tectonic resurfacing that has affected the most recent geologic era of Venus. This paper will cover the status of the systematic mapping of Venus and the cartographic work that supports the efforts.

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